

Beginning with

AB IPBox 9000HD

AB IPBox 900HD

AB IPBox 910HD

AB IPBox 91HD



Beginners guide

Rel 120609

This guidebook is designed for beginning users of AB IPBox 9000HD, 900HD and 910HD receivers. It describes some of the functions that are mentioned in the User Manual as well as some new functions that are included in the latest versions of the supported firmware. The guidebook comes out from AB r7700 and newer software. This guidebook does not replace the official User Manual and also does not describe all of the functions and controls of your receiver. Therefore we recommend studying the User Manual delivered with the receiver before reading this guidebook.

AB IPBox 9xxxHD series receivers are direct generation followers of AB IPBox models. Compared to 2xx, 3xx and 4xx models AB IPBox 9xxxHD receivers enable High Definition DVB-S2, DVB-S, DVB-C and DVB-T reception in MPEG 2 and MPEG 4/H.264 standards.

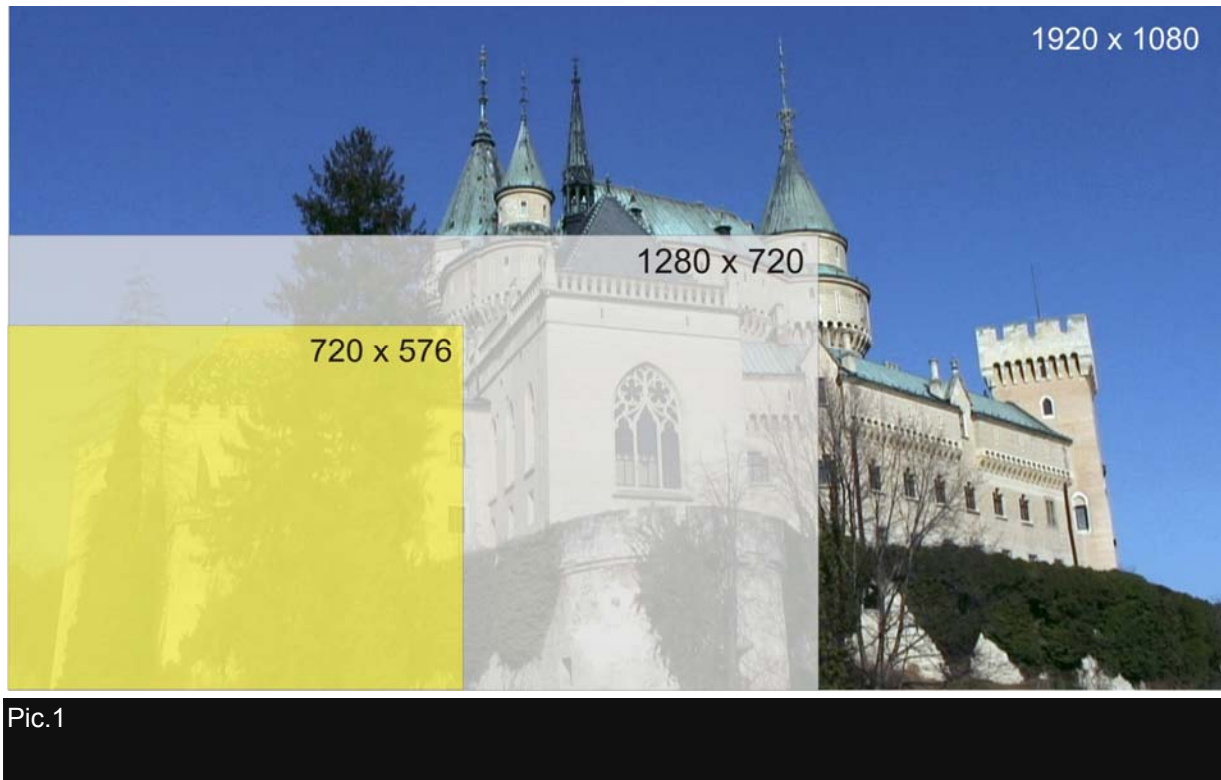
Warning:

Watching a Pay TV without paying corresponding abonement fees is illegal and will be punished according to the laws.

A little theory won't kill anybody...

Let us explain some of the basic terms connected to theory of reception usage of HD signal.

HDTV is abbreviation for *High Definition Television*. It involves a digital signal with higher picture resolution than recent SDTV (*standard-definition television*) PAL, SECAM a NTSC standards. Minimum HDTV resolution must be at least 720p (1280x720) – “720” means that the signal is recounted on the TV screen in 720 horizontal lines and “p” means progressive (uninterlaced) mode. An even higher quality image is reached with 1080i and 1080p (i = interlaced).



We can also encounter 576p - EDTV (Extended Television) version of resolution that is used by some DVD players but is not used in satellite transmission. You can see comparison of different resolutions on Pic.1.

There are two ways of recounting picture used in practice - *progressive* and *interlaced*. In progressive recounting just pair or impair lines are drawn at the moment but the recounting progresses so quickly that the human eye is not able to notice it in normal conditions. A small decrease of picture quality can be seen during fast action scenes when noticeable flickering can appear. In interlaced recounting whole screen (all lines) are drawn at each moment - „refresh“.

To complete definition of HDTV signal we must describe information about number of pictures (frames) displayed per one second. The designation of 720p signal should be for example 720p50 – it means that the picture consists of 1280 x 720 pixels and is recounted 50 times a second. 1080p resolution signal can be distributed in 1080p24, 1080p25 or 1080p30 (for NTSC) versions.

It is very important to realize the difference between picture quality of SDTV and HDTV. The new generation of TV transmission enables up to four times higher resolution than SDTV, which results in a sharper, more precise and more realistic picture.

Here you can find description of all formats:

Standard Definition:

SD PAL 576i	720x576i	Transmission in PAL or SECAM standard
SD NTSC 480i	720x480i	Transmission NTSC standard
EDTV	576p/480p	Standard that is used by some DVD players

High Definition:

720p camcorders	1280x720p	HDTV format used in HDTV transmission or in HDV
1080i	1920x1080i	The most often used HDTV format that is used in digital transmission and BlueRay discs - can be used in 50i or 60i version.
1080/24p	1920x1080p	Special format that is used in BlueRay discs for transfer from movie material without conversion of frame rate.
	1080p1920x1080p	Format that is used just in BlueRay discs in 50p or 60p version.
HDV 1080i	1440x1080i	HD format that is used in HDV camcorders.

There are a lot of different markings of resolution of TVs especially in marketing. You can find some of these signs in conjunction with plasma, LCD or OLED displays.



This logo means that TV-set is able to display signals of up to at least 1080i. Generally signal 1080p is not supported. Physical resolution of plasma displays is 1024x768 and physical resolution of LCD displays is 1366x768. Standard SD/HD signal is recounting into these physical resolutions.



This logo means that the physical resolution of display of such a marked TV-set is 1920x1080 and is able to display a 1080p signal and perhaps up to 1080/24p ("Cine" mode) signal. 576i/p and 720p signals must be "upsampled".

Generally, **MPEG 4 AVC/H.264** or older MPEG 2 codecs are used for HDTV transmission. The main advantage of MPEG 4 AVC/H.264 codec is its better utilization of transfer capacity – compared to MPEG 2 codec it enables usage of rapidly higher compression while achieving the same quality. MPEG 2 compression is nowadays used just for SD signal – mainly because of retroactive compatibility. In sound level HDTV signal is compatible with Dolby Digital (AC3), eventually with older formats Dolby Pro Logic /II and Stereo/Dual LPCM. Native picture format is 16:9 (1,7:1).

Another difference with SDTV is usage of **DVB-S2** standard (Digital Video Broadcast – Satellite – Second Generation). DVBS2 brings plenty of news and advantages:

- Up to 30% increase of sensitivity
- Thanks to usage of MPEG 4 AVC/H.264 codec it is possible to transmit 1 HDTV MPEG 4 AVC/H.264 channel with the same transport capacity as 1 SDTV MPEG 2 channel
- Enables real-time change of coding parameters (VCM – Variable Coding and Modulation)
- ACM (Adaptive Coding and Modulation) – enables adjust rate of coding on individual transponders - function that enables better utilization of transport capacity
- Support for up to 4 modulation modes : QPSK and 8PSK for common operation and 16PSK and 32PSK for professional and data transfer

There are several kind of interfaces used for connection of satellite receiver and HDTV display/projector:



YpBpR – analog connection of HD signal via so-called component cable. It is used in all HD devices because it provides compatibility with older HD ready TV-sets. It transfer just video signal – audio signal is transferred separately.



DVI – Digital Visual Interface – digital connection of HD signal mostly used in computer devices. This interface is used by very few satellite receivers (especially older types of devices - DM800/8000HD) and it is replaced by HDMI interface.



HDMI – High Definition Multimedia Interface – is a digital connection of HD signal that is used in all present HD devices. It enables digital video signal transmission up to 1080p resolution together with audio transmission in LPCM, Dolby Digital, DTS, DVD-Audio, Super Audio CD, Dolby TrueHD, DTS-HD Master Audio and MPCM formats. From 1.2 version it even supports transmission of control and check data according to CEC (Consumer Electronic Control) protocol. There is comparison of particular HDMI version in table below. **AB IPBox 9xx/9000HD receivers are all equipped with HDMI 1.2a connectors.**

HDMI version	1.0–1.2a	1.3+
Maximum signal bandwidth (MHz)	165	340
Maximum TMDS bandwidth (Gbit/s)	4.95	10.2
Maximum video bandwidth (Gbit/s)	3.96	8.16
Maximum audio bandwidth (Mbit/s)	36.86	36.86
Maximum Color Depth (bit/px)	24	48 ^[A]
Maximum resolution over single link at 24-bit/px ^[B]	1920×1200p60	2560×1600p75
Maximum resolution over single link at 30-bit/px ^[C]	N/A	2560×1600p60
Maximum resolution over single link at 36-bit/px ^[D]	N/A	1920x1200p75
Maximum resolution over single link at 48-bit/px ^[E]	N/A	1920×1200p60

HDMI version	1.0	1.1	1.2 1.2a	1.3	1.3a 1.3b 1.3b1
sRGB	Yes	Yes	Yes	Yes	Yes
YCbCr	Yes	Yes	Yes	Yes	Yes
8 channel LPCM /192 kHz /24-bit audio capability	Yes	Yes	Yes	Yes	Yes
Blu-ray Disc video and audio at full resolution ^[F]	Yes	Yes	Yes	Yes	Yes
Consumer Electronic Control (CEC) ^[G]	No	No	Yes	Yes	Yes
DVD-Audio support	No	Yes	Yes	Yes	Yes
Super Audio CD (DSD) support ^[H]	No	No	Yes	Yes	Yes
Deep Color	No	No	No	Yes	Yes
xvYCC	No	No	No	Yes	Yes
Auto lip-sync	No	No	No	Yes	Yes
Dolby TrueHD bitstream capable	No	No	No	Yes	Yes
DTS-HD Master Audio bitstream capable	No	No	No	Yes	Yes
Updated list of CEC commands ^[I]	No	No	No	No	Yes

Digital HDTV satellite receivers with Linux operating system

AB IPBox 9000HD , AB IPBox 900HD , AB IPBox 910HD

AB IPBox	91HD	900HD *3	910HD	9000HD
Number of tuners	1	1	1	2 (*2)
Plug&Play tuners	No	Yes 1	Yes 1	Yes 2
DiSEqC 1.0, 1.1, 1.2	Yes	Yes	Yes	Yes
USALS	Yes	Yes	Yes	Yes
Card readers	1	x	1	2
CA slots	X	2	2	2
LAN	Yes	Yes	Yes	Yes
RS232	X	Yes	Yes	Yes
RF modulator	X	No	No	No
SCART	1 only CVBS	2	2	2
USB	2.0(host)	2.0(host)	2.0(host)	1.1(client), 2.0(host)
S/PDIF optical	Yes	Yes	Yes	Yes
Power switch	X	Yes	Yes	Yes
Display	LED 4 digits	alphanumeric matrix VFD	alphanumeric matrix VFD	alphanumeric matrix VFD
Channel memory max.	8000	10000	10000	10000
HDD support	external USB	external eSATA I	external eSATA/ internal 2.5" SATA I	3.5" SATA I
DVB-S/S2	Yes	Yes(*1)	Yes(*1)	Yes(*1)
DVB-C	X	Yes(*1)	Yes(*1)	Yes(*1)
DVB-T	X	Yes(*1)	Yes(*1)	Yes(*1)
MPEG2 decoding	Yes	Yes	Yes	Yes
MPEG4/ H264 decoding	Yes	Yes	Yes	Yes
PSTN modem	X	x	x	Yes
S-Video output	X	x	x	Yes
HDMI with HDCP	Yes	Yes	Yes	Yes
YpBpR	X	Yes	Yes	Yes
Software upgrade via RS232	X	Yes	Yes	x
Software upgrade via USB	Yes	Yes	Yes	Yes
Software upgrade via LAN	Yes	Yes	Yes	Yes

(*1) exchangeable
Plug&Play tuners

(*2) standardly supplied with
1x DVB-S2

(*3) normaly is not sold any
longer



AB IPBox 9000HD

- DVB-S ,DVB-S2, DVB-T, DVB-C support
- Exchangeable (Plug & Play) tuners
- MPEG-2 MP@HL Video Decoder
- MPEG-4 AVC/H.264 HP@L4 Video Decoder
- MP3, JPEG playback
- Dolby Digital AC3 downmix decoder (Stereo output)
- HDMI v.1.2a with HDCP protection
- Multi-format Audio Decoder
- SDTV and HDTV standards support
- 2 Common Interface (CA) slots
- 2 smart card readers
- 3,5" SATA HDD installation support
- Supported resolutions: 1080i, 720p, 576i
- USB 2.0 (Host) support
- USB 1.1 (Client) support
- Ethernet 10/100 (LAN)
- MVFD Display
- SCPC a MCPC in C/Ku-satellite band
- Full color OSD
- Picture In Graphic (PIG)
- PiP (Picture in Picture) and PaP (Picture and Picture) from 1 or 2 tuners
- Electronic Program Guide (EPG)
- LINUX , kernel 2.6.17.14 – open operating system (some parts under GPL licence)

Front panel of receiver:

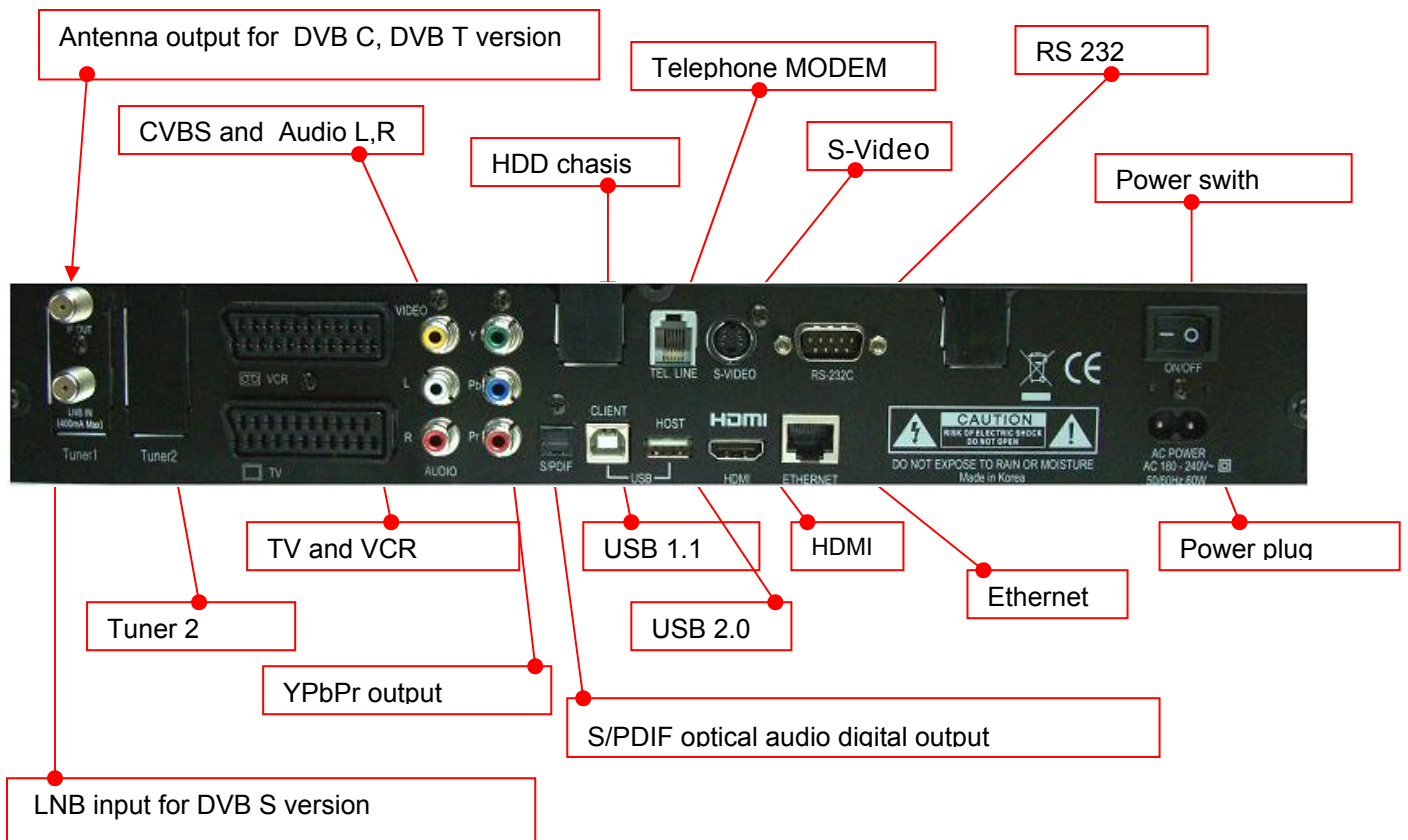
- 2 smart card slots
- 2 Common Interface (CAM) slots
- MVFD (Matrix Vacuum Fluorescent Display) – showing channel name, current time, receiver status and error messages.
- On/Off button
- MENU button
- EPG button
- FILE button
- OK button
- Cursor buttons: UP, DOWN, RIGHT, LEFT

Display of AB IPBox 9000HD rel.2



-  Stand by mode
-  TV mode
-  Radio mode
-  Actual channel is satellite
-  Actual channel is terrestrial
*If neither SAT nor TER is highlighted - actual channel is DVB-C
-  Prerecorded file from HDD is being played
-  Recording
-  Normal watching, timeshift or file playback
-  Timeshift is "on" on live program
-  Timer is active (in Standby mode – it is not highlighted when STB is turned off)
-  Actual watching program (file) is in HD format
-  A device is connected to USB host
-  Actual program is locked or STB is locked.
-  Actual program is broadcasted with Dolby Digital audio
-  Mute
-  Indication of working tuner/tuners
-  MP3 playback
-  Repeat playback
-  Video resolution of actual broadcasted program

Rear panel



Rear panel of STB equipped wit 2 tuners.



Note:

There is a modified AB IPBox 9000HD rel.3 receiver on market from April 2009. It is equipped with similar display as rel.2 receivers but the display is blue without red symbols. Also the ventilation fan is replaced to the rear panel close to power supply souce and new ventilation slots are added onto the front cover of the receiver to reach better circulation of hot air.

The Rel.3 receivers are softwarly fully compatible to older models.



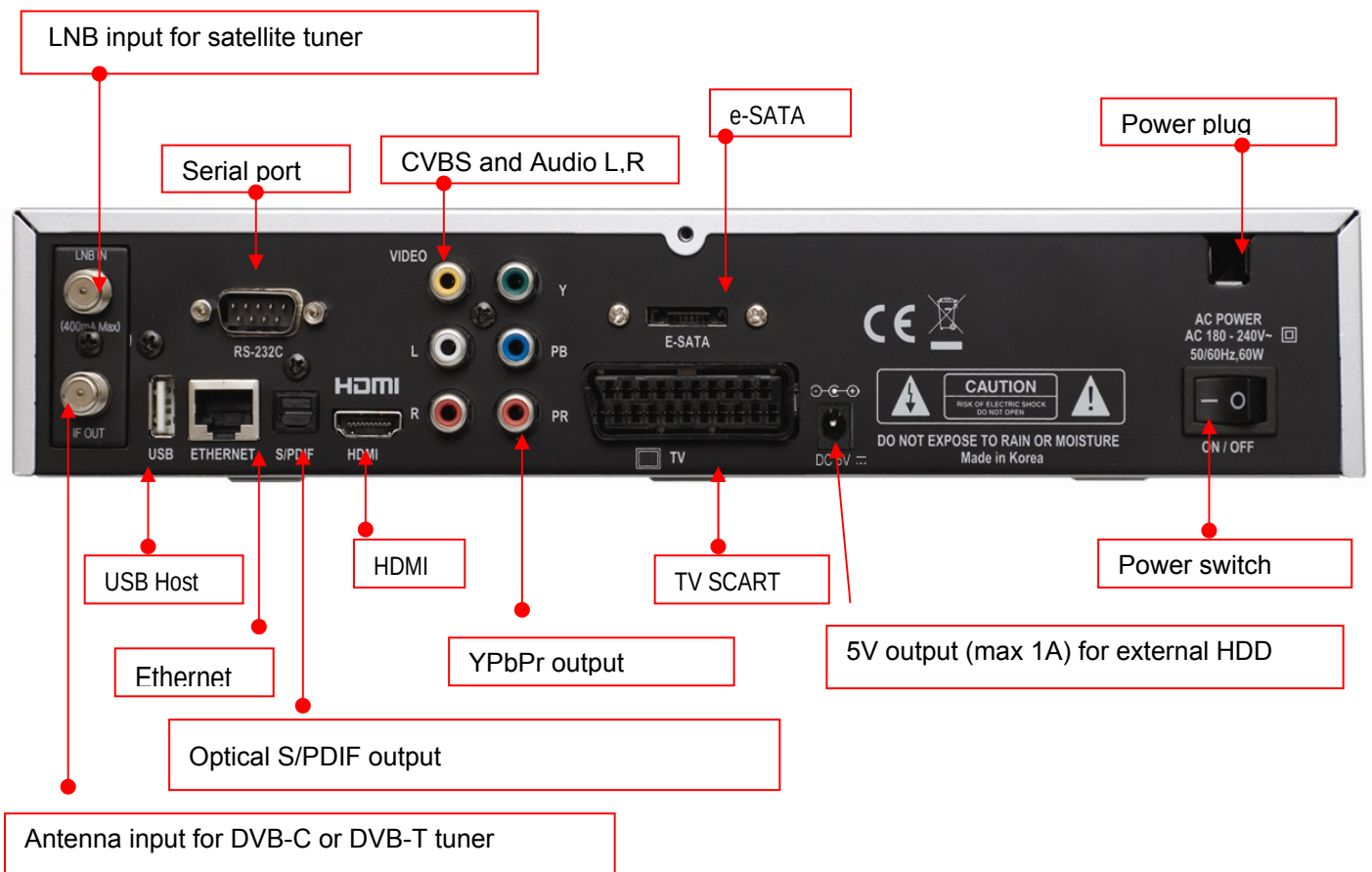
AB IPBox 900HD/910HD

- DVB-S ,DVB-S2, DVB-T, DVB-C support
- Exchangeable (Plug & Play) tuners
- MPEG-2 MP@HL Video Decoder
- MPEG-4 AVC/H.264 HP@L4 Video Decoder
- MP3, JPEG playback
- Dolby Digital AC3 downmix decoder (Stereo output)
- HDMI v.1.2a with HDCP protection
- Multi-format Audio Decoder
- SDTV and HDTV standards support
- 2 Common Interface (CA) slots
- 1 smart card readers (only 910)
- 2,5" SATA HDD installation support or e-SATA HDD connection support (**only 910HD**)
- e-SATA HDD connection support (**only 900HD**)
- Supported resolutions: 1080i, 720p, 576i
- USB 2.0 (Host) support
- Ethernet 10/100 (LAN)
- Vysokorýchlostný Ethernet 10/100 (LAN)
- MVFD Display
- SCPC a MCPC in C/Ku-satellite band
- Full color OSD
- Picture In Graphic (PIG)
- PiP (Picture in Picture) and PaP (Picture and Picture) from 1 or 2 tuners
- Electronic Program Guide (EPG)
- Subtitle and Teletext support
- LINUX , kernel 2.6.17.14 – open operating system (some parts under GPL licence)

Front panel

- 2 smart card slots
- 1 Common Interface (CAM) slot (only 910HD)
- MVFD (Matrix Vacuum Fluorescent Display) – showing channel name, error messages, current time, audio mode, recording status and other information.
- On/Off button
- MENU button
- EPG button
- FILE button
- OK button
- RIGHT cursor button (Vol +)
- LEFT cursor button (Vol -)
- UP cursor button (CH +)
- DOWN cursor button (CH -)

Rear panel



I have got my new receiver – what do I do with it....

During the first running of your receiver just press and hold the MENU button on front panel – preset video output appears on display.

Select corresponding output: 1080/50 for HDMI, SD-PAL for SCART and press OK.

AB IPBox 9000HD, 900HD and 910HD receivers are standardly equipped with **AB** software that originates from an upgrade of original **DGS** software. AB software contains a new webinterface and adjusted files structure for simple modification by users. It also enables installation of addons- additional modules for new functions of your receiver.

Common marking of AB softwares is e.g.: **AB_9000HD_070808_r7932_usb_all_noboot**

AB – software by AB-COM

9000HD – model, software is designed for

231008 - date of issue (23.10.2008)

R8340 - version of original DGS software that AB sw originates from

usb_all_noboot – type of installation file

AB software also contains basic setting with groups for **Astra 19,2E** , **Hotbird 13E** , **Astra 23,5E** and **Thor 0,8W** satellites.

If you do not use a motor we recommend connection of DiSEqC switch in following sequence:

Astra 19,2E output 1 (A)

Hotbird 13E output 2 (B)

Astra 23,5E output 3 (C)

Thor 0,8W vstap 4 (D)

If you set your DiSEqC like this then there is no necessity in setting up anything even after software upgrade.

It is standard for delivered AB software to not support card readers. To enable card readers you must install SF upgrade for AB image marked as „**addon_version-**

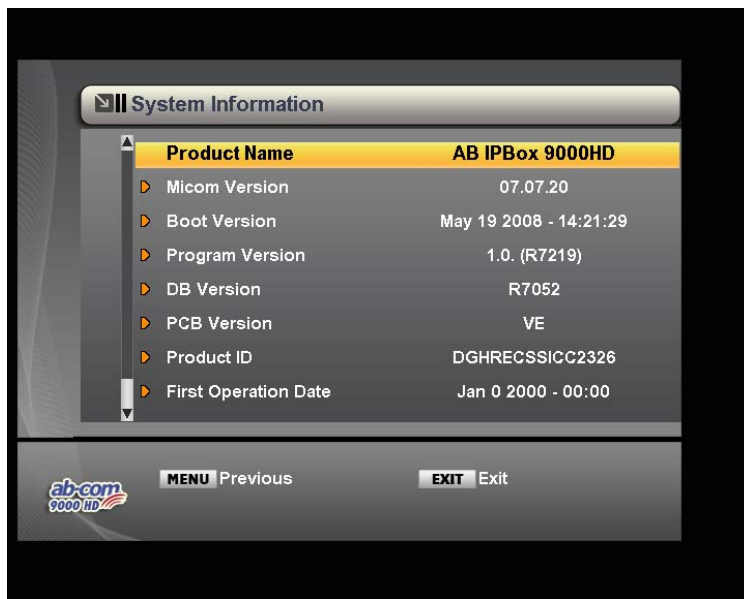
9000HD_sh4_260608“.

You can find it and many more on unofficial web pages www.satupdate.net .

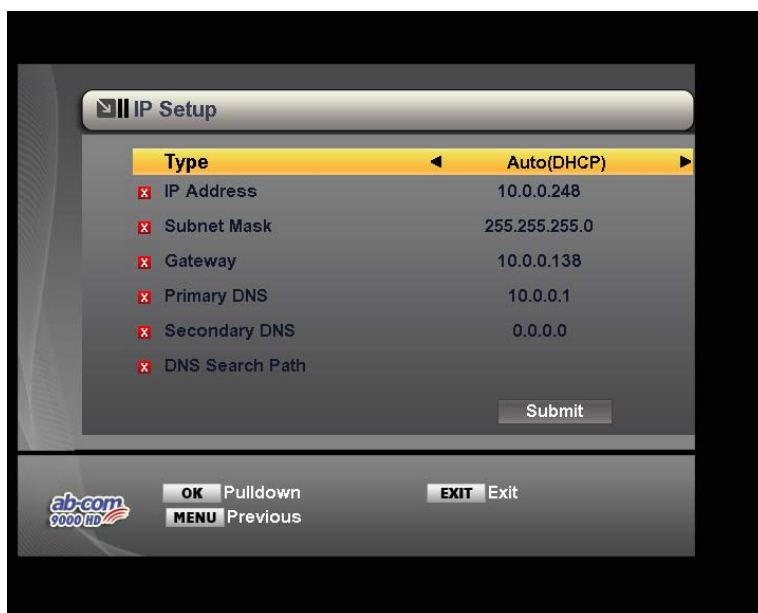
Method of installation of all types of addons (up to 8630B version):

Warning: Addons from 9203 version are released as „xxxx usb_db.img“. It means that such a addon can be installed the same way like main image – via flash tools through USB or directly through USB flash memory. In this case it is necessary to rename the addon file into „usb_update.img“.

You can find detailed description of the installation in the User Manual.

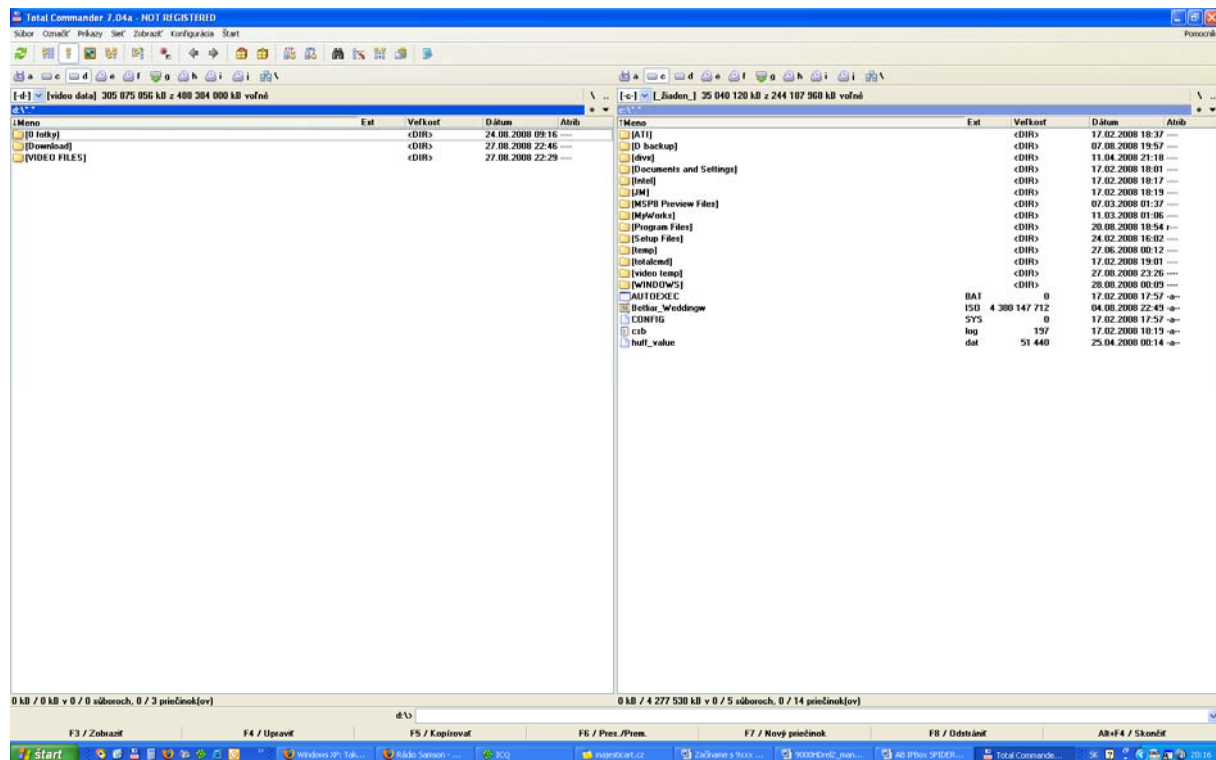


Addons are installed via webinterface of your receiver.
Find the IP address of your receiver (or insert it manually) in menu before installation.

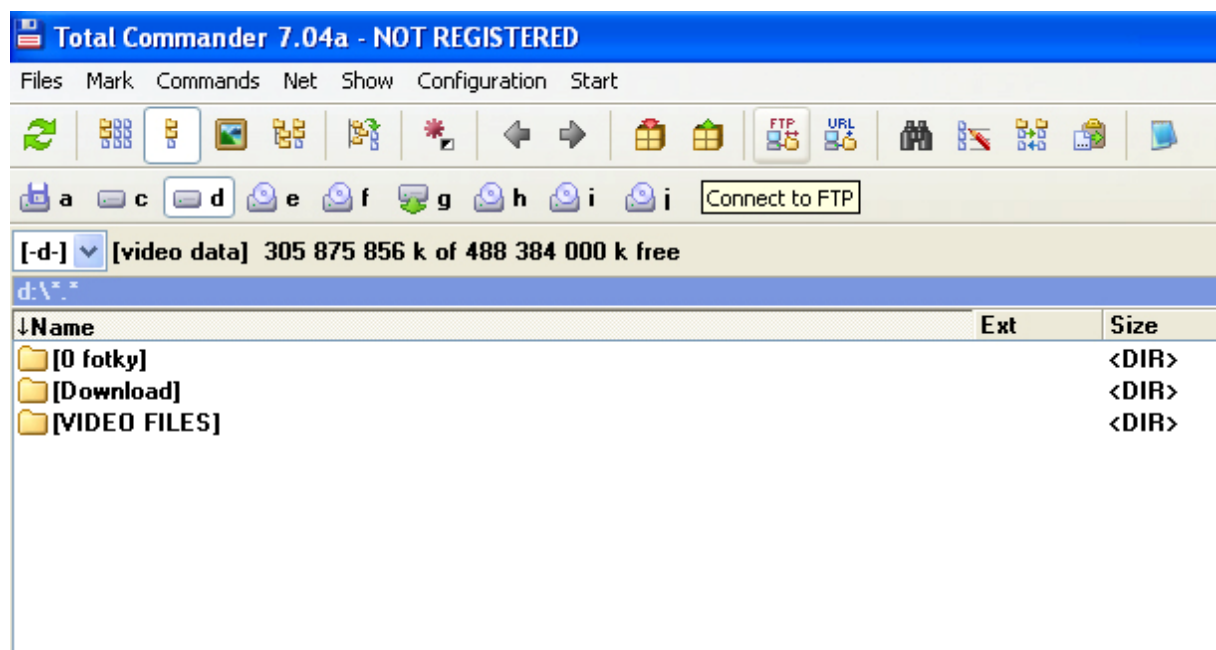


Use any commander software (software for management of files – e.g. Total Commander) that enables ftp connection to connect to your receiver. Use: root, password : ipbox.

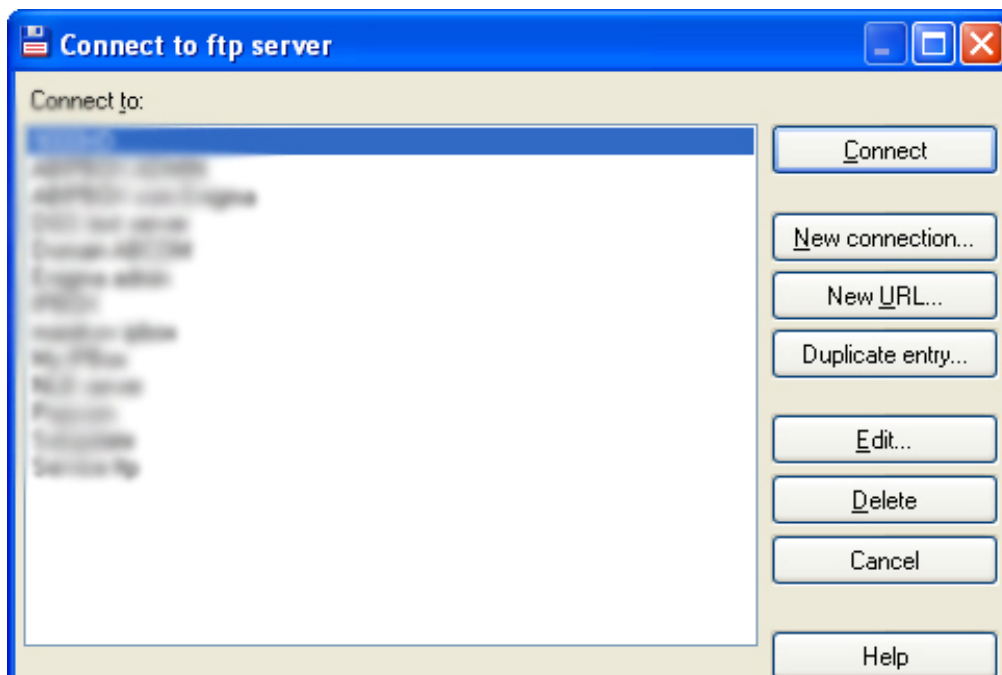
Example for Total Commander :
Run Total Commander on your PC



Select „Connect to FTP“ icon or use key short cut CTRL+F.



Select „NEW CONNECTION“.



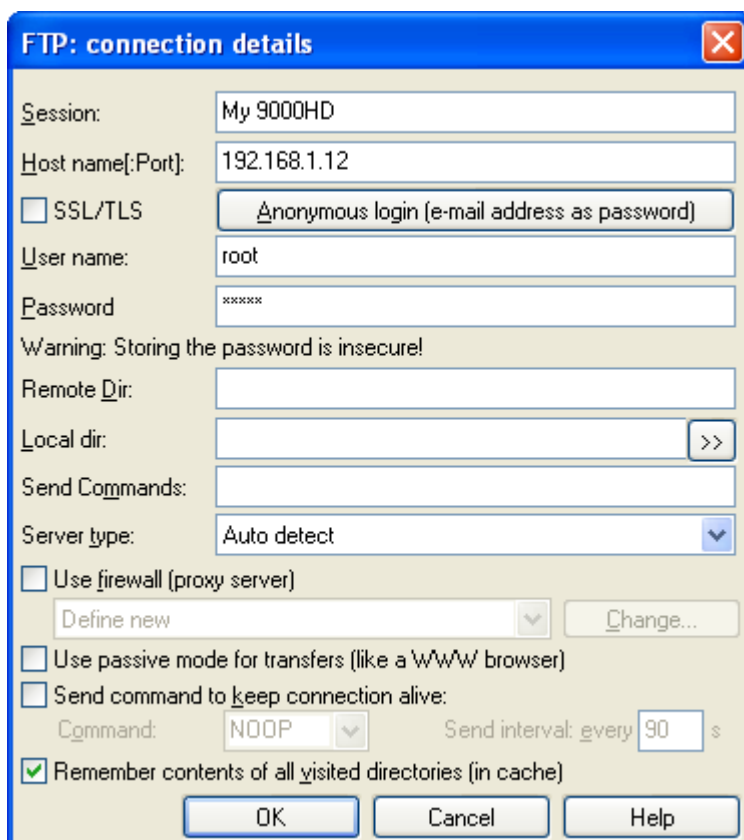
Fill in the displayed window:

Session – name of connection (you can use any name)

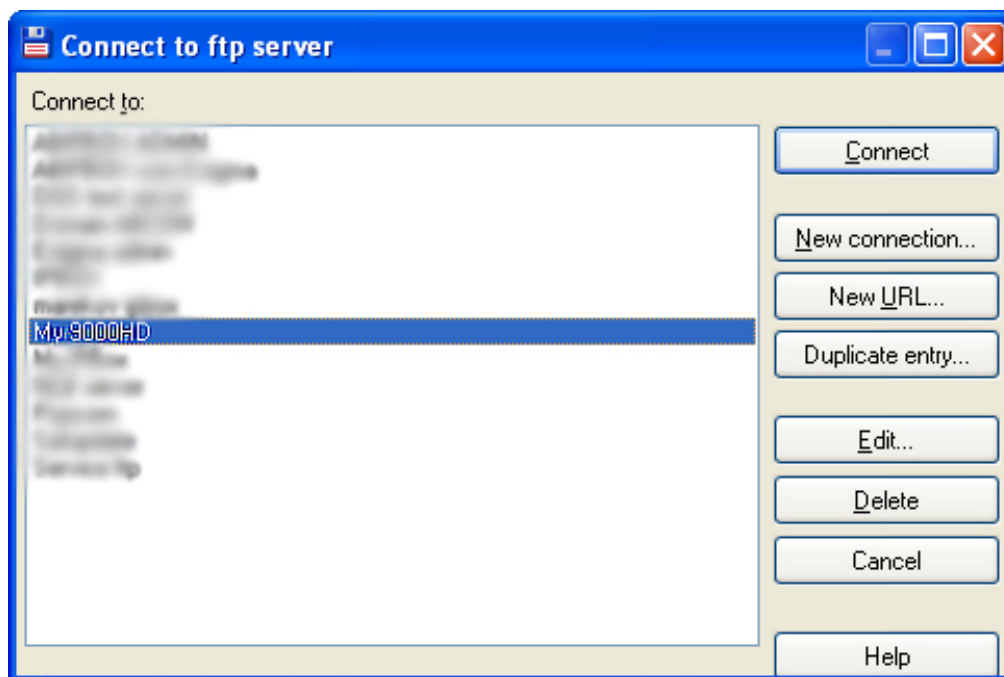
Host name – **IP address of your IPBoxu**

User name – **root**

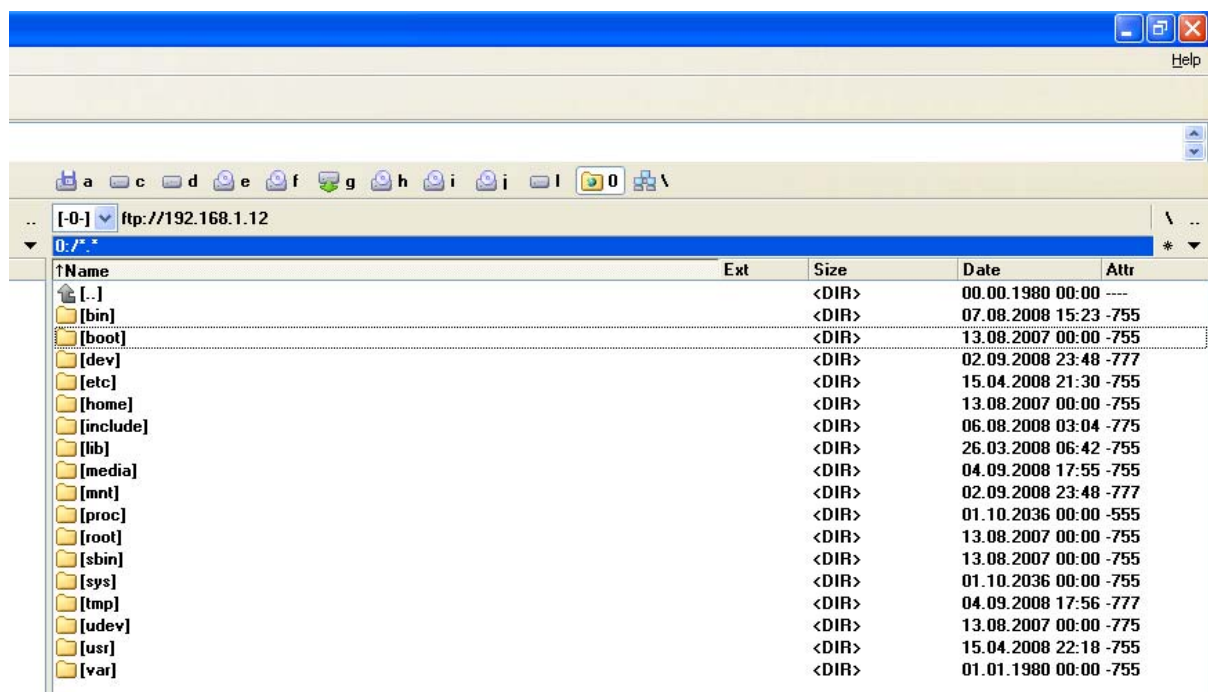
Password - **ipbox** (can be „relook“ for images different from AB)



Press OK and select „CONNECT“

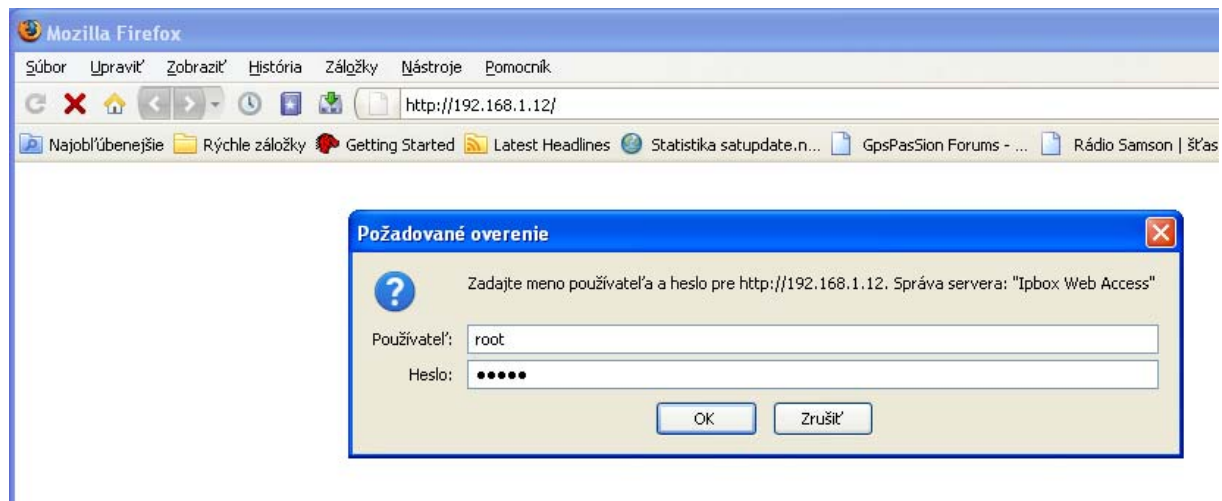


A list of directories of your receiver appears:



Copy installation file of corresponding addon (ipk extension) into /tmp directory in your receiver.

Run a web browser on your PC and insert IP address of your receiver into line for entering web address. Use name : root, password : ipbox.



The opening page of web interface of your receiver appears.

AB IPBox 9000HD WEBINTERFACE

ab-com
www.abipbox.com

DVB-S
DVB-T
HDMI
DOLBY DIGITAL

home addons option skins free password free free free free

AB IPBox 9000HD

Webinterface addon
version sh4 110608 based
on AB 1.0

Specification:

- Processor: STi7101-266MHz, 192MB DDRAM, 32MB Flash
- 2x Common Interface slot, 2x Smart Card reader
- 2x Exchangeable Plug and Play tuners support (DVB-S2, DVB-S, DVB-T, DVB-C)
- HDTV and SDTV decoding (MPEG2, MPEG4 (H.264) formats)
- Alphanumeric VFD display with channel name presentation
- Ethernet 10/100, USB 2.0 Host controller, USB 1.1 Client
- HDMI 1.2a with HDCP output (1080i, 720p, 576i formats)
- Internal 3,5" SATA (SATA I) HDD support
- Simultaneous recording of two channels of one or two TP while watch 3rd channel
- Time Shift function - possibility of getting back in time on real time canal
- MP3, JPEG and DivX playback from internal HDD or USB disc, Internet radio playback
- Built-in AC3 decoder with 2.0CH downmix, multi-format audio decoder
- Web interface for complete remote management of the receiver
- Possibility of watching TV programs through LAN or Internet
- PIP/PAP function recording+live or live+live picture from one or two tuners

© 2008 AB Com - All right reserved | AB IPBox 9000HD | Created by: Majesticart.cz

Select the „addons“ item and confirm by „INSTALL“.

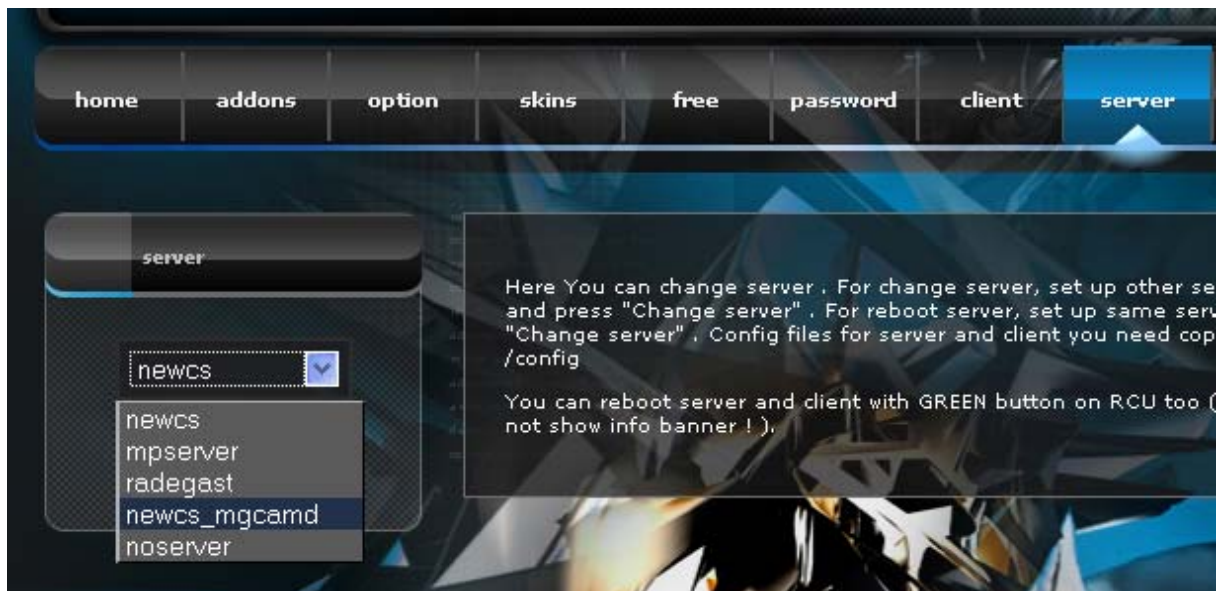


The addon will be installed automatically and your receiver will restart. Wait until your STB turns on. Connect to the webinterface again - Client, Server and Keys item appears in upper bar.



There is a **newcs** as server and **mgcamd** as client preset in addon. If a smart card is inserted into your receiver it will be automatically active after new running your STB. If you need to restart emulation you can do it by two ways:

1. press the **green** function button on your remote control when no menu or OSD information is displayed (if a menu or OSD information is displayed press EXIT button).
2. select server item in webinterface and select „newcs_mgcamd“ and then „Change Server !“



Addon usually contains **keys**. To update them just press the **red** function button on your RC or enter the Keys menu in the webinterface page.

New versions of images and SF addons

From AB r9207 version there are images marked with DRE letters (e.g.: „AB_9000HD_r9207**DRE**_060409_usb_all_noboot.zip“) which are released together with common images. Such a marking means that the image supports **only** DRE CAM access module (e.g. Cryptoworks module will not work). Therefore if you do not use DRE CAM module do not install such a image into your receiver!

Latest **AB r9341** software for AB IPBox 9xxxHD receivers (released on 30th April 2009) brings a lot of news and patches.

List of all patches can be found in change logo that is attached to the software.

New functions: There is several new options in HDD playback, possibility to use higher trick speed (up to 16x), possibility to use “skip” function in HDD playback. If you press a numeric button on your RC during a playback the receiver “skips” on corresponding time, e.g.: press “1” to start playback from 10% of the time of whole recording, press “6” to start playback from 60% of the time of whole recording, press “0” to start playback from beginning.

You can also set "drag interval" – time step that will be used for FF/REW function. Set this parameter by using Pg Up/Pg Down buttons on your remote controller from 10 secs to 1 hour.

Except for common SF addon there was also "SF addon with Sifteam add..." released that additionally includes addon by Sif team.

This addon is determined mostly for AB IPBox 9000HD receiver and is designed to enable decoding from tuner 2.

New functions of addon:

- program decoding for recording and PiP from both tuners
- new WebIf CUBEREVO 1.3.3 (enables WebTV and brings possibility to change colour functions buttons for different plugins)
- Red function button: favip plugin (replaced changing favourite channels with epg)
- Green function button: Sif MultiMenu with different scripts (e.g. keys download from Internetu, removing tmp recording without restart, IPK addonos and plugins installation from tmp directory or from Internet)
- Yellow function button : zoom (3 options - repeatedly press the button in max 5secs delay).
- automatic download of the keys 7 times a day (can be changed in /var/etc/SifTeam/conf/crontab)
- new plugins (MultiMenu, bitrate, EPG9KdId, favpip, fps, hddtemp, mail, weather, shoutcast, timeonscr, games: pong, sudoku, tetris)
- Sif plugins installation online from Internet (via Sif MultiMenu – green function button).

Installation:

The way of installation is the same as for installation of an image. If you use USB flash memory rename the file into "usb_update.img"

- instal just SF addon with Sifteam after installation of AB r9341image – you do not have to instal common SF addon
- if you use cards in your receiver – PiP function and recording from 2 tuners shoul work without any problems
- if you use "share" function you must set: there are three newcamd.list files in var/keys (watching, recording, PiP), sharing must be set in all of these three files. It is "mgcamd" so every "newcamd.list" on server side (newcs) must consider its own account – on the other side it will not work properly.

Remove all newcamd.list and newcamd.conf files in var/tuxbox/config.

All this must be set even if you use only one tuner so in this case we recommend to use common SF addon (without Sifteam) – it is enough to set sharing only in newcamd.conf (var/tuxbox/config).

SF addon with integrated Sifteam addonom is designed mostly for configuration with 2 tuners.

Name and password after installation of the software is root/relook. If you use any of addons you must use root/ipbox .

Network cooperation of receivers

AB IPBox 9000HD/900HD receivers with installed addon can cooperate in a network as server and client e.g. for card sharing. This function enables sharing one access card for several receivers connected in the network.

To activate the sharing it is necessary to configure **newcs.xml** (for server), **newcamd.conf** (for server and client) and **mg.cfg** files. We recommend to use **pspad** freeware to do that – the software is available at www.pspad.com.

Configuration files in receiver operating as server (AB IPBox 9000HD)

Content of newcs.xml file (AB IPBox 9000HD). Can be found in: **/var/tuxbox/config/**

```
<newCSconfig>                                     # reader 2

<readers name="Card Readers">
<device>
<name>lower</name>
<type>Sci</type>
<node>/dev/sci0</node>
<export>yes</export>
<enabled>yes</enabled>
<blocksa>No</blocksa>
<blockua>No</blockua>
<blockga>No</blockga>
<boxkey>0000000000</boxkey>
<PTShandshake>yes</PTShandshake>
<crypto-special>no</crypto-special>
<carddetect>yes</carddetect>
<newcamd_port>10001</newcamd_port>             # reader 2 port number
<priority>round</priority>

</device>

<device>                                           # reader 1
<name>upper</name>
<type>Sci</type>
<node>/dev/sci1</node>
<export>yes</export>
<enabled>yes</enabled>
<blocksa>No</blocksa>
<blockua>No</blockua>
<blockga>No</blockga>
<boxkey>0000000000</boxkey>
<PTShandshake>yes</PTShandshake>
<crypto-special>no</crypto-special>
<carddetect>yes</carddetect>
<newcamd_port>10000</newcamd_port>             # reader 1 port number
<priority>round</priority> <!-- hard is default -->

</device>
</readers>
<cache>
<emm>10</emm>
<ecm>-1</ecm>
</cache>
<debug>
<level>normal</level>
```

```

<type>init</type>
<output>tcp,console</output>
<logfile></logfile>
<console_options></console_options>
<file_options></file_options>
<udp_host>192.168.1.10</udp_host>
<udp_port>1000</udp_port>
<udp_options></udp_options>
<tcp_port>3001</tcp_port>
<tcp_options></tcp_options>
</debug>
<newcamdserver>
<enabled>yes</enabled>
<name>MOJSERVER</name>
<deskey>01 02 03 04 05 06 07 08 09 10 11 12 13 14</deskey>
<userfile>/tmp/users.txt</userfile>

<user>                                # setting up name/password for user 1
<name>mutant</name>                  # for internal readers in this case
<password>teletele</password>
<au>on</au>
</user>

<user>                                # setting up name/password for user 2
<name>server</name>                  # every client must have got its own name/password
<password>server-pass</password>
<au>on</au>
</user>

</newcamdserver>
</newCSconfig>

```

Content of **newcamd.conf** file in server receiver. Can be found in: **/var/tuxbox/config/**

#These two lines are necessary to provide server to access to its own cards (in its slots)
– **SERVER MUSTBE ALSO ITS OWN CLIENT !!!**
CWS = 127.0.0.1 10000 server server-pass 01 02 03 04 05 06 07 08 09 10 11 12 13 14
CWS = 127.0.0.1 10001 server server-pass 01 02 03 04 05 06 07 08 09 10 11 12 13 14

127.0.0.1 is IP address used for sharing own cards. It is always the same.

Configuration files in client receiver (AB IPBox 9000HD, 900HD, 910HD)

Content of **newcamd.conf** file in client receiver. Can be found in: **/var/tuxbox/config/**

CWS = 10.0.0.99 10000 mutant teletele 01 02 03 04 05 06 07 08 09 10 11 12 13 14
CWS = 10.0.0.99 10001 mutant teletele 01 02 03 04 05 06 07 08 09 10 11 12 13 14

10.0.0.99 is IP address of SERVER – adjust according to your setting

Content of preset **mg.cfg** file that must be located into **var/keys/**

```
# EMM messages
# 00 don't show any EMMs (default)
# 01 show only valid EMMs
# 02 show valid and bad EMMs with complete data display
M: { 01 }

# ECM messages
# 00 don't show anything about ecm
# 01 normal mode, show pids processed, decoded ecm and cw
# 02 verbose mode, show valid and bad ECMs with data
C: { 01 }

# AU
# 00 disable, no emm pids processed
# 01 enable, emm pids always processed for soft-au and shared cards
# 02 auto, emm started only if channel cant be decoded
# 03 process emm pids for network cards update only
A: { 02 }

# key update (sum 01 or 02 with 04)
# 01 update only new keys, default setting
# 02 update all keys (used for valid PMK checking)
# 04 enable TPS au
# + tps au pid
U: { 01 } 0x1ACB

# config files folder (softcam, autoroll, ignore/priority)
# 00 files in /var/keys
# 01 files in /tmp
T: { 00 }

# network mode, use summ for several clients
# 00 no network (default)
# 01 newcamd netclient
# 02 radegast netclient
# 04 camd3 netclient
# 08 gbox netclient
G: { 03 }

# network retry, use summ for several options
# 00 disable
# 01 retry every new ecm
# 02 try to connect to offline shares every Q: seconds
# 04 try to detect and fast reconnect to lost (and not used atm) server
# + XX messages number and YY seconds to reconnect
# mg will reconnect to server, if no answer to last XX ecm/keepalive or
# if no answer for last ecm or keepalive sent for YY seconds
# set to 0 to disable
N: { 07 } 5 30

# network ecm timeout in seconds
K: { 05 }

# newcamd dead routes connect retry, sec
Q: { 60 }
```

```
# network shares priority
# 00 gbox, newcamd, radegast, camd3 (default)
# 01 camd3, radegast, newcamd, gbox
# 02 newcamd, camd3, gbox, radegast
P: { 00 }
```

```
# on screen display type
# 00 No OSD (default)
# 01 neutrino
# 02 enigma
# 03 relook
# + user password for http auth
O: { 00 } username password
```

```
# on screen display Options, summ of:
# 01 show emu ecm
# 02 show network shares messages
# 04 show decoding failed / fta
# 08 show emm keys update
# + web port to use for osd
S: { 03 } 8080
```

```
# Log option, summ of:
# 00 off
# 01 network udp log
# 02 log to console
# 04 file, appended ! delete it by yourself, before it eat all your hdd
# + IP udp-port log-file-name
L: { 03 } 127.0.0.1 28007 /tmp/mgcamd.log
```

```
# keep ecm cache, seconds
# every cache entry takes 28 bytes, so 24h cache will take *only* 240-400kb of
memory,
# for openbox/elanvision users with remote shares make sense to set it higher than
default value,
# to not hammer cards while timeshifting or playing crypted recordings.
E: { 15 }
```

```
# cache option, summ of:
# 00 Off (default)
# 01 Ecm pids cache, store pids used to decode in /tmp/ca_cache.list at exit, load at
startup, same syntax as restore.list
# 02 Ecm data cache, remember CW for (E:) time
# 04 Emm cache for network cards, do not resend the same emm twice, cache not
cleared until restart
H: { 07 }
```

```
# reread files, summ of:
# 00 No (default)
# 01 reread config file on channel change (including priority and ignore, but not
replace/cache)
# 02 reread SoftCam.Key on channel change
# 04 reread SoftCam.Key if file changed
R: { 04 }
```

```
# debug, summ of
```

```
# 00 off (default)
# 01 debug ecm
# 02 debug emm
# 04 debug network ecm
# 08 debug network emm
# 16 debug network login
# 32 show mem/cpu stats every 1 min
# 64 add timestamp to log messages
D: { 00 }
```

```
# box type
# 00 autodetect, change only if you think wrong type detected.
# 01 dbox2
# 02 dreambox
# 03 triple-dragon
# 04 relook
# 05 openbox
B: { 00 }
```

After copying configuration files it is necessary to restart your receiver or turn on corresponding combination of cardserver and emulator. There are instructions for setting up NewCS cardserver and Mgcamd emulator described above. If you have such a combination (newcs+mgcamd) preset in your receiver just press the green function button while no menu or OSD information is displayed!

Plugins for AB IPBox 9xxxHD receivers

Plugins – additional software modules that extend ability of the receiver and bring a new functions that are not included in basic software.

Bitrate plugin

Bitrate plugin is designed to show information about actual symbol rate of audio and video signal. From 0.0.4 version it also enables to show even information about video resolution, aspest ratio, video and audio codecs.

Usage:

Enter the Menu – plugins: It shows max, min, average and actual symbol rate of video, symbol rate of audio, video codec and audio codec. The data are updated every 2 seconds. Press OK button to switch between showing actual and average symbol rate. Press Exit button to to cancel the plugin.

Installation:

Copy the „bitrate.plugin“ into **/var/plugin-in** directory (DGS image)
Or into **/usr/share/sbox/plugin-in** directory (AB image)

Most of plugins are already preinstalled in original images and addons.

Software upgrade

It is very important to upgrade your software regularly when using any linux based device. It brings a lot of new advanced functions or correction of possible errors. That is why we recommend always doing software upgrade always when any problems or errors occurs!

There are several ways how to upgrade software of your AB IPBox 9xxxHD:

Model	RS232 Flash tools	USB klient Flash tools	USB Host USB key	Network update
AB IPBox 9000HD	only uboot	YES	YES	from r9207
AB IPBox 900HD	only uboot	NO	YES	from r9207
AB IPBox 910HD	only uboot	NO	YES	from r9207
AB IPBox 91HD	NO	NO	YES	from r9207

AB IPBox 9xxx receivers enable doing some service settings by pressing combination of specific buttons on the front panel of your receiver.

These functions are available on older AB IPBox 9000HD receivers just after installing uboot 1.3.1 or newer - all new receivers are already equipped with it. AB IPBox 900HD a 910HD receivers standardly contains preinstalled uboot.

1. Software upgrade through flash USB memory device (host):

- Backup all data saved on your USB memory device and after it erase all data.
- Copy an image software (any of usb_all, usb_all_noboot.....) from your PC into USB flash memory and rename it into **usb_update.img** .
- Use “Safety remove USB device” function before disconnecting your USB flash memory.
- Turn off your receiver ( + ) and connect USB memory to USB (host) connector on your receiver.
- Press and hold Standby () on front panel until “**BOOTING**” message appears on display. Press Up button (). “**USB UPGRADE**” message should appear on display of your receiver – the software update performs automatically.
- Wait until **DONE** message appears and restart your receiver.

Warning: Do not turn off or operate your receiver during software upgrade !!!

2. Hard turn off

- Simultaneously press Standby and OK buttons ( + ).

3. Video output setting :

- Press Standby () button on front panel and hold () button on at the same time.
- Actual preset video output appears on display. Use UP/DOWN cursor button to change Video output. Confirm by pressing ().

4. Software update through serial port (just uboot on 900/910)

- Press and hold Standby (⏻) button on front panel and hold (▶) button at the same time. „**serial upgrad**“ message appears on display. Continue in update via **Flash tools**.

5. Forced HDD formatting

- Press and hold Standby (⏻) button on front panel and hold (▲) button at the same time.

6. Software update through USB (client) via Flash tools (only 9000HD)

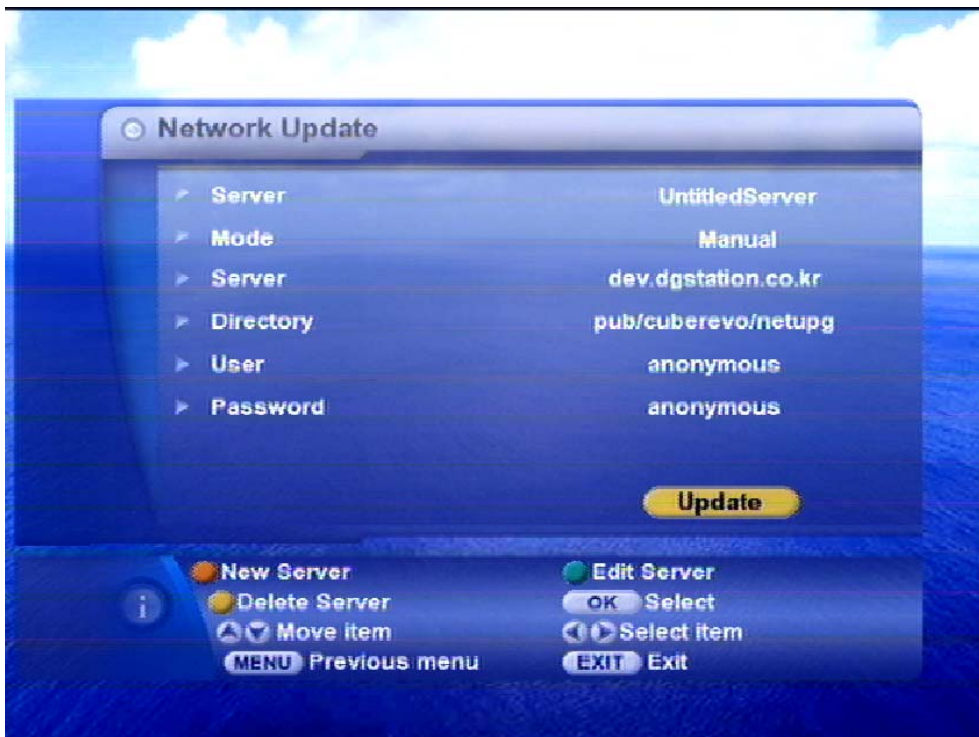
- Press and hold Standby (⏻) button on front panel. „**USB UPGRADE**“ message appears on display.

Network Update – update via Internet

Network Update service enables direct download of firmware (images) – receiver must be connected to Internet.

Enter „**Network update**“ from main menu – select corresponding server and choose „**Update**“. The Receiver will automatically connect to the server – select an image version to be downloaded and confirm. Upgrade will perform automatically. „Erasing“, „Flashing“ messages appears on display during the process. Wait until the „Done“ message appears and restart your receiver by pressing „Standby“ button. If „Erasing“, „Flashing“ messages do not appear in several minutes turn off your computer and try upgrade again.

Never turn off the receiver during Erasing“, „Flashing“ messages are displayed !!!!



Software update via Flash tools (only 9000HD)

Installation of USB Driver

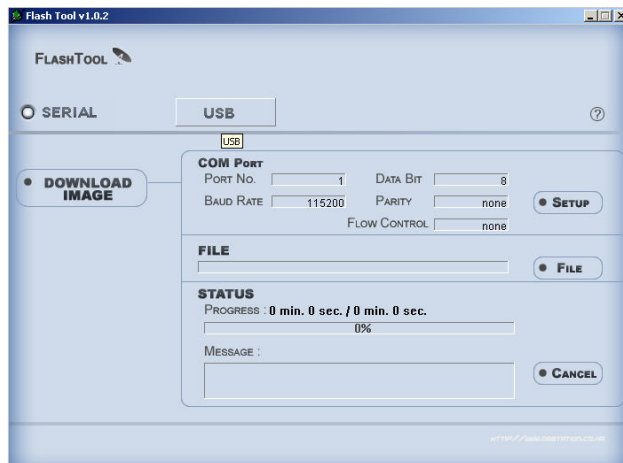
USB driver installation is to be done only before first running of Flash tools software.

1. Download and install Flash tools software (1.0.2 version or higher) into your PC. The software is available on www.download.abcom.sk (registration is obligatory).
2. Turn off your receiver by power switch or simultaneously press Standby and OK buttons on front panel (cold turn off).
3. Connect the receiver to your PC by USB cable.
4. Turn on the receiver.
5. Press and hold Standby button on front panel until "USB UPGRADE" message appears on display.
6. PC should detect a new device and will ask for installation of USB driver.
7. Driver installation guide should start.
8. Select 'install from a list or specific location (advanced)' and click on NEXT.
9. Select 'Include this location in the search' and click on Browse.
10. Find C:/Program files/Flash_tools directory and click on 'Next'.
11. The guide should find corresponding driver.
12. Select 'USB FOR VESTA – c:/windows/inf/vestausb.inf' and click on 'Next'.
- 12.1. If system is not able to find the driver automatically you can find it manually in c:/program files/Flash_tools/vestausb and click on 'OK'.
13. Click on 'Finish' after finishing installation.

Warning: It is very important to exactly follow the instructions exactly step by step.

If the driver is correctly installed you can continue installing a new firmware into your receiver.

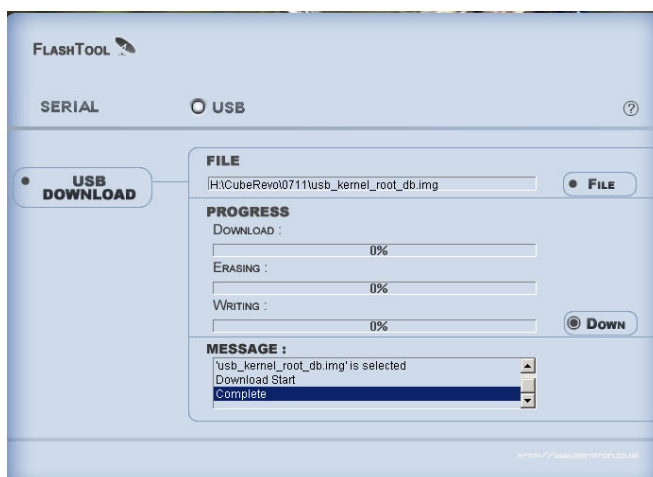
Software upgrade through USB (klient) (only AB IPBox 9000HD)



1. PVR and PC must be connected by USB cable.
2. Press and hold Standby button, turn on the receiver by power switch and wait until "USB UPGRADE" message appears on display.
3. Run Flash tools in your PC.
4. Click on USB button on upper bar - "USB Connected" message appears in "Message" window.



5. Click on "File" and select demanded software to be downloaded into your PVR.
6. Click on "Down" – downloading of software should begin.



7. Wait until "DONE" message appears (if demanded software consists of several parts use the same procedure for all of them) and press Standby button on front panel or remote controller. PVR will restart.

Setting up of universal RC for operating with other AB IPBox models

It is possible to set up remote controllers of AB IPBox 900HD/910HD and AB IPBox 9000HD for operating with other AB IPBox models.

To change setting just press and hold “OK” button for about 10 seconds together with corresponding number button (see list below). Setting is finished when “STB” button blinks. Release the buttons.

Remote controllers of **AB IPBox 9000HD** and **AB IPBox 900HD** can be operated in following modes:

OK+1 : AB IPBox 4xxS and AB IPBox 250S

OK+2 : AB IPBox 9000HD

OK+3 : AB IPBox 350Prime

OK+4 : AB IPBox 200S

OK+5 : AB IPBox 900HD/910HD

OK+7 : AB IPBox91HD



21. Troubleshooting

Problem	Possible cause	Solution
Display does not display.	Power cord is not connected into power plug.	Check out the feeding.
No picture / sound.	Wrong A/V connection between receiver and TV.	Check the A/V connection between receiver and TV.
	Mute function is active.	Press Mute button on RC.
	TV is turned off.	Turn on the TV.
	No signal	Check wiring among LNB and other devices.
	A/V output is Incorrectly set.	Press and hold MENU button while STB is on and select correct video output.
Remote controller does not operate.	Wrong adjustment of antenna.	Adjust the antenna.
	Batteries are not inserted correctly or are discharged.	Check the polarita or insert new bateries.
	DO is turned into TV mode (TV button blinks when pressing) or is set for controlling different model of AB IPBox.	Press STB button. Set RC for controlling your model.
CA module does not work	CA module is not inserted.	Check out if the CA module is inserted correctly.
	CA module is not inserted correctly. správne.	
It is not possible to start recording or recording stopped.	No free place on HDD. HDD has not been formatted. HDD checking is just running.	Check HDD status.

Forgotten PIN code.		Reinstall firmware of your receiver by „all_noboot“ installation file.
No EPG data	Local time is not set correctly	Press Time update in Local time setting menu
“ERR 80” or “ERR 81” message appears on front panel of your receiver.	Wrong communication between CPU and motherboard.	Contact authorized service.
“ERR 82” or “ERR 83” message appears on front panel of your receiver	Wrong contact of tuner in mini PCI slot of motherboard.	Unplug the receiver from power supply and check the contact or contact authorized service.
“PANIC” or „System halt“ message appears on front panel of your receiver	Program error.	Simultaneously press and hold Standby + OK buttons on front panel of your receiver to turn it off and then turn it on. If problem resists try to reinstall firmware of receiver.
Err 79	Incompatible database.	Download compatible database "db.img" or whole image "all_noboot.img"
Err 1	CRC error , damaged image file	Check the file or try to install again.
Err 2	CRC error , damaged image file	Check the file or try to install again.
Err 3	Wrong ID of manufacturer	Check downloaded file or try to install it again.
Err 4	Wrong ID of manufacturer	Check downloaded file or try to install it again.
Err 5	Incorrect model of receiver	Check if the software corresponds to your model.
Err 6	Incorrect model of receiver	Check if the software corresponds to your model.
Err 8	Erasing error	Contact authorized service
Err 9	Flash writing error	Contact authorized service
Err 10	Incorrect or missing installation file	Check downloaded file or repeat the procedure with USB flash again – keep the procedure step by step according to instruction !
“ERR 84”	DVBS-2 microcode loading failed	Contact authorized service

Plugins for HD series

Read me files for all plugins:

❖ Bitrate plugin

This is a bitrate plugin for the AB IPBox 9xxxHD, which displays the current video and audiobitrate from the TV station.

USAGE:

=====

The plugin updates the values every 2 seconds, you can switch from a larger view, which displays current, average, min, max values and audiodata, to a smaller view with only current and average values with the "OK" button.

Keep in mind, that the plugin will switch to the other mode on the next value update, so it might take up to 2 seconds, before the mode is switched. To quit the plugin press exit.

INSTALL:

=====

copy the bitrate.plugin file to the /var/plugin directory

Release-notes:

=====

0.0.1:

- initial release

0.0.2:

- adapted for R8573 (try to open /tmp/pti.tmp before /tmp/pti2.tmp)

0.0.3:

- colors are loaded from skin

0.0.4:

- video resolution and aspect ratio is displayed (thanks to pacco for cooperation)
- several minor fixes

0.0.5:

- show video resolution with dgstation function (>=R8813)
- radio mode is handled correctly

❖ FavPip plugin

This plug-in provides an alternative to the favourites channellist in the firmware.

Its main advantages

=====

- Allows to switch channels in PiP or live mode (and filters channels which cannot be opened in PiP mode).

So it can also be used as alternative to the Sub channel list.

- Current epg is shown next to the channelname (if available)
- Sorts your favourites groups as defined in PCEditor

Key Mapping

=====

Up/Down -> figure it out yourselves :)

Left/Right -> jump 5 entries in list

Red/Green -> change Favourites group

Blue -> switch live/Pip mode

Yellow -> show channel number before name

Jumping to a channel directly:

1. Put channel order number, with digits buttons.

What is input will be shown on the bottom/right with '*' asterisk character as a marker.

2. Press 'OK' button to switch to channel or 'Exit' to cancel.

Licence

=====

GPL

RELEASE 0.5

=====

- initial release

RELEASE 0.5.1

=====

- fixed panic when /var/theme folder is not present
- automatically jump to currently active group and channel on startup

RELEASE 0.5.2 (Mod by COoLoSER)

=====

- added information about current and total fav groups, it is shown in left upper corner, before group name

- yellow button shows/hides order number of channel

- added information about current channel order number, it is shown in right bottom corner.

Numbering is exactly like in DGS soft.

- PgUp/PgDown works like Left/Right button

- added ability to jump to channel by giving its order number.

- checking of current channel, to not switch when there is no need for it.

RELEASE 0.6

=====

- show epg next to channel names

RELEASE 0.6.1 (Mod by COoLoSER)

=====

- missing features added in 0.5.2

RELEASE 0.6.2 (Mod by COoLoSER)

=====

- features of all previous versions
- added EPG bar which presents relation between passed time of current program to duration of that program
- LEFT/RIGHT buttons don't roll the list
- PgUp/PgDown switch whole page, don't roll the list

RELEASE 0.6.3 (Mod by COoLoSER)

=====

- added option to close plugin with second press of OK on the same channel

RELEASE 0.7

=====

- added basic skin support
- increased timeout when leaving with ok button
- reordered icons in legend, increased font size

RELEASE 0.9

=====

- configuration support, see favpip.config for details. Config file must always finish with empty line.
- saves state on exit and restore on open. Temporary settings do not survive box restart
- Brand new keys support
- FILE key show/hide hidden channels
- EPG key show/hide epg informations
- for hidden channels new HIDE icon is displayed at the right side, before SCRAMBLE icon
- Transparent background with BOOKMARK key.

RELEASE 0.9.1

=====

- configuration files can have line end in both formats 'LF' or 'CRLF'
- favpip.config is looked for in plugin folder, which is defined by sbbox. Should work on DGS and ABCOM firmware.
- header shows positions of SCRAMBLE and HIDE icons.
- HIDE icon in header represents state of hidden channels visibility.

RELEASE 1.0.0

=====

- fixed bug which caused start/stop recording hanged up osd for a while
- new configuration option 'show_format_icon' which is used to show or hide channel format icon. Icons are 'mp2' or 'mp4'
- separation of RADIO and TV channels. What is shown depends on current TV/RADIO mode
- new configuration option 'hide_empty_groups' which is used to show or hide empty groups
- parental control -> hide channels settings is respected by plugin. If it is enabled then hidden channels are hide all the time

and cannot be show. If it is disabled then FILE key controls showing and hiding of that channels

RELEASE 1.9.0 - RC for 2.0.0

=====

- whole code was rewritten and now is using widget libraries.
- no more global variables
- navigation is now 5 times faster then in previous ones.
- new configuration options for fonts setting added. They still need to be fixed to check border values.

RELEASE 1.9.2 - RC for 2.0.0

=====

- plugin sets default colors if it cannot read it from current skin, it happens on sifteam image
- new configuration options to set colors
 - general.background.color=0x0d0e0f
 - general.normal.color=0xffffffff
 - general.focus.color=0x000000

RELEASE 1.9.3 - RC for 2.0.0

=====

- transponder is now set correctly in live channels, so pip filter works good.
- switching to second empty group when empty groups are shown was not possible, not it is fixed.

RELEASE 1.9.4 - RC for 2.0.0

=====

- plugin now reads skin colors and images on SIFTEAM image
- Normal spaces between rows for those who uses 'CRASH Polish fonts'. Fonts have too big paddings, plugin fixes that.
- plugin version is shown in the bottom right corner

RELEASE 1.9.5 - RC for 2.0.0

=====

- new configuration options to set colors of bar of current program from epgr
 - general.epg_bar.future=0x00df00
 - general.epg_bar.past=0x0d0d00
- new special values of configuration options
 - window_x=-1 - if equals -1 then window is positioned on center of the screen, horizontally
 - window_y=-1 - if equals -1 then window is positioned on center of the screen, vertically

RELEASE 1.9.6 - RC for 2.0.0 (for Crash)

=====

- new configuration options to enable/disable epgr progress bar
 - general.epg_bar.enable=true - enable (default)
 - general.epg_bar.enable=false - disable
- During plugin work plugin name is displayed on receiver LCD

RELEASE 1.9.7 - RC for 2.0.0

=====

- new configuration options to force plugin close after every OK button press.
 - single_ok_close=false - disable (default)
 - single_ok_close=true - enable

- Starting plugin while recording shows available channels like in PIP mode. This version is mostly usable for those who have only one tuner. Having 2 recordings on boxes with 2 tuners will show full list, this will be fixed in next release.

RELEASE 2.0.0

=====

- new feature to show epg info of current audition
- new feature to show list of current and next auditions from epg
- key "i" (info) changes footer mode, possible values are:
 - legend - shows simple key legend (default)
 - epg info - shows epg info of current audition
 - epg list- shows list of auditions from epg
- support for volume buttons, different meaning dependent on 'footer mode'
 - FOOTER MODE - MEANING
 - legend - changes audio volume
 - epg info - scrolls epg info up and down
 - epg list- scrolls epg list up and down
- new configuration values for new 'footer modes':
 - For 'epg info' mode
 - epg_info.elements_number - page size of channel list in that mode. Bigger means smaller footer (default=7)
 - epg_info.font - font size used to display epg info (default=15)
 - For 'epg list' mode
 - epg_list.elements_number - page size of channel list in that mode. Bigger means smaller footer (default=7)
 - epg_list.font - font size used to display epg list (default=15)
 - epg_list.max_auditions - number of auditions to get and display (default=3)
 - epg_list.hide_current_audition - if true hides current audition in epg list
 - General
 - epg_list.first=true - decides if 'epg list' mode should be before 'epg info' mode (default=false)
 - footer.restore_mode=true - if set to true then plugin remember 'footer mode' on exit and restore it on plugin open (default=false)
- fixed bug which caused PANIC when config file did not have empty line at the end.

❖ HDDtemp plugin

This is a very simple plugin, which displays the current temperature from the SATA disk.

This plugin is basically a wrapper which executes the hddtemp binary with pfopen system call, and display the result in OSD from ipbox.

INSTALL:

=====

copy the files to the following directories on your box:

binaries/hddtemp -> /var/bin/hddtemp

binaries/hddtemp.db -> /var/etc/hddtemp

hddtemp.plugin -> /var/plugin

binaries/galaxy-man-bg-hddtemp.jpg -> /var/plugin/bg-hddtemp.jpg

or

binaries/crash-bg-hddtemp.jpg -> /var/plugin/bg-hddtemp.jpg

COPYRIGHT

=====

This software is distributed under the GPL license.

CREDITS:

=====

The hddtemp tool is written by Emmanuel Varagnat

The homepage can be found at <http://www.guzu.net>

crash/zbigzbig20 / Gman2006 for contributing background images

m_auro1 for sending disk state patch

Release-notes:

=====

0.0.1:

- initial release

0.0.2:

- added support for background picture (/var/plugin/bg-hddtemp.bmp)
- display output from hddtemp on multiple lines
- only execute hddtemp command twice if we have "no sensor" message

0.0.3:

- check if all necessary files are installed, otherwise report on screen
- setup execute bit on /var/bin/hddtemp if it is not set

0.0.4:

- added new background image contributed by Gman2006
- added remote controller code, plugin now exits when you press exit button
- removed trailing doublepoints on hddtemp output
- display filesystem type (ext2/ext3) from harddisk

0.0.5

- added background image contributed by crash and zbigzbig20, so it seamless integrates in skins from crash
- replaced background image contributed by Gman2006 with new version
- changed text position for new background

- you have now two background images (galaxy-man-bg-hddtemp.bmp and crash-bg-hddtemp.bmp)
- and can choose one of them and copy it as /var/plugin/bg-hddtemp.bmp on the box
- replaced hddtemp binary with stripped version from timelord

0.0.6

- does not crash anymore, when bg image is missing
 - changed parse method from hddtemp to strtok
 - use new JPEG_convert_to_BMP_plugin function to convert background image from from jpg to bmp on the fly (This function was added by Taehoon.Koo from DGSTATION on my request).
- Thanks to Taehoon.Koo for the quick implementation from this function

0.0.7

- display harddisk state (sleep/active) thanks to m_auro1 for sending a patch (keep in mind that hddtemp plugin does wake up the disk if you start plugin twice)
- display output in simple osd window if no /var/plugin/bg-hddtemp.jpg is present
- use colors of current skin if no /var/plugin/bg-hddtemp.jpg is present

❖ Mail plugin

This is a plugin, which allow you to show email messages from a imap or pop3 mailserver

INSTALL:

=====

copy the files to the following directories on your box:

```
bg-mailplg.jpg      ->/var/plugin (if you have a ABCOM based image -
>/usr/share/sbox/plugin)
mail.plugin         ->/var/plugin (if you have a ABCOM based image -
>/usr/share/sbox/plugin)
mail-plugin.cfg     ->/var/plugin (if you have a ABCOM based image -
>/usr/share/sbox/plugin)
mailutils-libs/libmailutils.so.1 ->/var/lib (if you have a ABCOM based image ->/usr/local/lib)
mailutils-libs/libmuauth.so.1    ->/var/lib (if you have a ABCOM based image -
>/usr/local/lib)
mailutils-libs/libmu_imap.so.1   ->/var/lib (if you have a ABCOM based image -
>/usr/local/lib)
mailutils-libs/libmu_maildir.so.1 ->/var/lib (if you have a ABCOM based image -
>/usr/local/lib)
mailutils-libs/libmu_mbox.so.1   ->/var/lib (if you have a ABCOM based image -
>/usr/local/lib)
mailutils-libs/libmu_mh.so.1     ->/var/lib (if you have a ABCOM based image -
>/usr/local/lib)
mailutils-libs/libmu_pop.so.1    ->/var/lib (if you have a ABCOM based image -
>/usr/local/lib)
```

add your imap/pop accounts to mail-plugin.cfg (if your provider has imap access, i would recommend imap over pop)
If your username includes a @, you have to url encode the @ with %40

Example:

```
username: user@domain.ch
password: mypassword
```

mailserver: imap.provider.ch
description: myaccount

line in configfile:
myaccount:imap://user%40domain.ch:mypasswordk@imap.provider.ch

COPYRIGHT

=====

This software is distributed under the GPL license.

CREDITS

=====

This plugin uses the a lot of libraries from GNUmailutils

Release-notes:

=====

0.0.1:

- initial release

0.0.2:

- added support to read plain/text messages

0.0.3:

- plugin doesn't panic anymore, when we have a transfer-encoding, but no charset
- messages summary does now correctly display date if we have no weekday in date

❖ **PONG Plugin**

Controllings:

Left/Right: Step left/right (hold key for faster step)

RED: New game

PAUSE: Pause

Higher level:

If one player reached 10, 20, 30, ... points, the ball will be speed up.

With each 5 points that player has more than computer, the computer becomes a little bit stronger.

❖ **SUDOKU Plugin**

Controlling:

Left/Right/Up/Down: control cursor

1-9: Insert number

0: Delete number

Violation check:

Press RED key for violation check

Possibility mode:

Press GREEN key

New game:

Press YELLOW key and select level

❖ **TETRIS Plugin**

Controlling:

Left/Right: go left/ fgo right

Up, OK: Turn stone

Down: Drop stone

RED key: New Game

PAUSE: Pause

Points:

You get points for:

1. each stone = 1 point

2. destroy:

1 line = 2 points

2 lines = 5 points

3 lines = 10 points

4 lines = 20 points

❖ **WebTV plugin**

This add-on allows you to watch the tv stream from the AB IPBox 9xxxHD over an web interface. For usage you need original AB image without addon, or SF addon with Sif team addon included.

INSTALL:

Copy var/bin from the archive to /var/bin on the box.

Copy var/www from the archive to the webif folder on your box (for example /var/www).

Make sure all script files and binarys are executable! (/var/bin, /var/www/cgi-bin)

USAGE:

Surf to <http://boxip/webtv/>

It's tested on Firefox and Internet Explorer 7.

Javascript is required.

Above the video frame you have the basic controls to switch the channels.

The addon loads all channels in your favourites list.

REQUIREMENTS:

- At least firmware R8611 is required!

- The following VLC versions are tested: 0.8.6i, 0.9.8a

(Others may not work, so please try one of these versions before reporting errors)

CAN HD CHANNELS BE STREAMED?

Streaming works for 720p channels, but for 1080i there is not enough network bandwidth.

Those are my test results, also try it for yourselfs.

KNOWN PROBLEMS:

- Radio programs cannot be streamed at the moment.

LICENSE:

All files are under the GPL.

CREDITS:

The server side code for the streaming is based on the streamts app.

RELEASE 0.1.1:

- fixes Internet Explorer 7 problem with vlc plugin

RELEASE 0.1.2:

- Many streamts server fixes
- Deinterlacer added

RELEASE 0.1.3:

- fixed bugs with handling of timeshift files in streamts
- fixed segfault under certain conditions in streamts

RELEASE 0.2:

- Stream is read directly from hardware, instead of timeshift files (thanks to soon and kneubi from denktenk)
- Video stream does not stop after channel switching. It's now also convenient to open the stream directly in vlc without the webinterface.
(This feature does not work in mplayer.)
- The stream starts playing directly after opening the webif

RELEASE 0.2.1:

- 720p channels should play fine now
- renamed some files to avoid collisions with DGS webif

RELEASE 0.2.2:

- works again on new firmwares
- solved wrong stream detection from vlc in certain conditions

NEW RELEASE 0.2.3:

- Some optimizations, leading to a lot less pixelations errors, especially after channel switching

❖ **Shoutcast plugin**

This plugin makes it possible to listen to shoutcast radio stations on the CubeRevo

building:

=====

In a full svn check out from the cuberevo-plugins trunk do a make in the shoutcast-plugin directory

Installation:

=====

Copy the shoutcast.plugin to /var/plugin

Requirements:

=====

a working libxml.so.1.4 has to be in /var/lib including symlinks to libxml.so.1 and libxml.so

libxml is not included in the source distribution. In the binary release, the lib is included.

From release 0.2 this plugin only works on R8728 and probably newer.

Installation:

=====

From the binary distribution:

Upload the shoutcast.tar.gz file to /tmp

telnet to the box and enter the following commands:

```
cd /
```

```
tar -zxvf /tmp/shoutcast.tar.gz
```

And the plugin is installed.

From the sources:

To be written.

Usage

=====

After loading you get a list of all genres that are available on the shoutcast server

The following keys can be pressed:

Up - up one entry

Down - down one entry

Left - down 10 entries

Right - up 10 entries

Ok - go into the genre

A list of stations will be shown. Keys are as with the genrelist.

After OK a list of streams from that radio station are shown

Pressing OK on a streams starts playing it.

The menu key will get you back one list, or stops the playing.

The order of the lists are determined by the shoutcastserver (based on popularity)

The number of genres as well, so there are quite a lot of them :)

Bugreports if other than the known bugs can be posted at denktenk.com forum.

Author Arvy,

Have fun with it.

Release 0.5.1

=====

Bugfix release.

- startup delay most probably fixed due to disabling network logging

- after the songtitle has changed, the sound got choppy, this is fixed now.

This version might appear a bit sluggish when browsing through the lists
if this is too annoying, please turn off the background image.

Release 0.5

=====

Added features:

- Some things are configurable now, see the shoutcast.config file to see how this works.
- Stopping the TV station can now be stopped at starting the plugin or when really starting the stream. This can be controlled from the config file.
- One can now choose to have a background picture, this can be controlled from the config file. Both picture and on/off
- The current playing song is shown on the front display.
This data is coming from the server, so it may sometimes even show some ads.
- A very simple screensaver is available, can be turned on or off from the config file

Changes:

Bug Fixes:

Known Issues:

Release 0.4

=====

Added features:

- bookmarking is now supported, press blue button to go into bookmark list to go back to normal list press blue again (always returns to genre listing).
The functions of the keys are printed in the bottom of the plugin window.
A lot of thanks to Pacco for implementing this.

Changes:

- Swapped the pg up and down keys to make things logical.

Bug Fixes:

- Detection of unsupported stream (AAC and redirect) is fixed.

Known Issues:

- Sometimes after playing a stream during a long time (over an hour) the plugin stop responding to the volume keys, and sometimes even to the menu key.
- There are still some panics during browsin

Release 0.3

=====

Changes:

- exit key is replaced by menu key, this is the same way as DGS handles the keys.
further more to exit the plugin press menu multiple times.
- Pg up an down now working like right and left

Added features:

- Volume up and down, however not being displayed.

Fixed bugs:

- responsiveness of remote control, stopping a stream might take up to 2 seconds, depending on the stream.
- closing of network connections to server after stop playing

Release 0.2.1

=====

Fixed bug:

- needed to reboot after usage, this is now fixed.

Release 0.2

=====

First public binary release.

Fixed bugs:

=====

- Choppy sound is fixed by using a different api
- A lot of unsupported streams from version 0.1 are now supported
- Redirected streams should not occur if you select a non full stream.
This can be prevented by selecting a stream that is not full (in the browser you see two numbers between () which mean (current no of listeners/max listeners) if the first number is smaller than the second, the stream won't redirect.

Known bugs:

=====

- after playing a shoutcast stream you cannot use the built-in mp3 player anymore until you reboot
- The end of lists aren't detected, so don't go past the end of the list as this will give a panic. Especially when using the right button.

Release 0.1

=====

First upload to svn, not made public in binary form

Known bugs:

=====

- AAC playback is not supported
- Redirected streams are not supported
- Some stream sent misformed headers and are not supported in this release
- Sound is still jerky due to missing api in sbox
- Sometimes it is necessary to push exit more then once when playing a Stream
- Keys are not conform DGS key handling

❖ WEATHER Plugin

Put weather.cfg in plug-in directory.

Set config file:

The config file has the following format: p=XXX&u=Y

To set XXX go to <http://weather.yahoo.com> and type in your city. After choosing your city you get to a page like "<http://weather.yahoo.com/forecast/GMXX0007.html>". Set as XXX the name of the html file, eg. GMXX0007.

For Y you can choose two values: c for Celsius or f Fahrenheit.

So in this case you a config file like: p=GMXX0007&u=c

❖ EPG9KdId.plugin

This program, "EPG9KdId.plugin" and all documentation, are copyright (C) 2008 pippo9k(AT)gmail.com. All rights reserved..

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.
3. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
4. The name of the author may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR ``AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software is inspired to mp_player.plugin for cuberevo
by DGstation.co,Ltd

EPG9Kdld.plugin version 0.1.0b of 12 August 2008

RELEASE NOTES and CHANGELOG
Version 0.1.0b "let's have fun" of 12 August 2008
Preliminary Release
Rilascio Iniziale

Import db to Box Standard EPG
Importa il DB neel'epg standard

Relook 400 Importer Compatible for Foreign users
Compatibile con il relook 400 Importer per utenti stranieri

Download and convert Italian EPG
Scarica e converte la Guida ai programmi Italiana

Not Fully compatible with EPG9K<0.1.0 (EPG9k has no timezone support)
Non completamente compatibile con EPG9k<0.1.0 (EPG9K non gestisce i fusi orari)

Path Fully Configurable see epg9kdld.cfg in /var/plugin directory
can be moved in /var/tuxbox/config
Direcory Completamente Configurabili guardate nel file
epg9kdld.cfg nella directory /var/plugin
il file può essere spostato in /var/tuxbox/config

GENERAL HOW TO
configure the plugin changing directory/file path
in epg9kdld.cfg if needed.
"importdir" must have more than 20MB free while
importing from WEB (use a folder on USB,HDD,or mount point)
Use arrows on remote to select wanted action,
use OK to start, EXIT to exit

To import with 400's importer follow the instructions
provided with the program, All Time must be GMT+0

Imported Channels are not selectable (Import ALL only).

XMLTV support will be soon available.

Warning: Convert without Download will result in an empty DB.

❖ FPS - Fast Plug-in Starter

Author: COoLoSER cooler_at_users_dot_sourceforge_dot_net

This plugin gives ability to start others plugins easily with any button on the remote.

It has three ways of starting plugins:

1. Without any button pressed in TIMEOUT it will run plugin configured as default.
2. With shortcut button pressed during TIMEOUT it will run plugin which is configured with that shortcut button.
3. With not mapped button pressed during TIMEOUT it will run GUI to manage plugins.

TIMEOUT is configured amount of time during which plugin waits for key pressings.

It starts few milliseconds after button which runs FPS is released and receiver started FPS.

FPS is fully configurable but fps.config file. Details in fps.config.example

FEATURES:

=====

- fully configurable
- 3 ways of plugin running
- show full details about every plugin
- GUI speed compared to DGS firmware speed
- automatic discovers new plugins

DEBUGGING & REPORTING

=====

In case of problems the following scenario will help solving problem.

1. add to config file following line
 debug.level=DEBUG
2. Run plugin and perform actions to reproduce bug.
3. Download via FTP file /tmp/fps.plugin.log. This can be done in most cases even if PANIC is on LCD.
4. Compose mail to author and attach log file.

RELEASE 0.1.0

=====

- Initial release.

RELEASE 0.1.1

=====

- added new configuration value 'debug.level'. See DEBUGGING & REPORTING
- plugin now opens TIMEOUT as fast as possible. The gap between button to start fps and to choose option
 is no minimal. Still small gap is needed as DGS sbx needs time to run fps
- plugin stops waiting TIMEOUT when any button press is received.

FAQ

1. Software compatibility

All the receivers are equipped with AB firmware. If you decide to use any other available firmware (SiF Team, NLB etc.) you must always use „all_noboot“ installation file. If such a file is not contained in selected type of installation use DGS firmware (available on www.dgstation.co.kr) as first and then demanded firmware. If you will not follow these instructions your receiver may not boot after installation !

2. SATA, e-SATA , USB HDD support

You can check compatibility of some HDD when connecting via **SATA** or **e-SATA** interface in table below. There are mentioned only models that were physically tested in the table. If there is a concrete model (e.g. **WD5000AACS**) mentioned it means that whole model line is also compatible (e.g. **WDxxxxAACS**). Some HDDs use SSC function – receiver may not identify it. In such a case use connection of your HDD through external USB box. AB IPBox receivers do not support simultaneous operation of two hard discs (internal and external but if you use internal HDD you can also use your USB flash memory to playback MP3 or JPEG files.

It is necessary to format your HDD after first turning on with installed HDD.

HDD producer	HDD model	capacity/GB	Size "	connection	9000HD	910HD	900HD
Western Digital	WD2500BEVS-22UST0	250	2,5	SATA 1	doesn't detect	doesn't detect	doesn't detect
Western Digital	WD5000BEVS-22ZAT0	500	2,5	SATA 1	doesn't detect	doesn't detect	doesn't detect
Western Digital	WD2500BEVS-00VAT0	250	2,5	SATA 1	doesn't detect	doesn't detect	doesn't detect
Toshiba	MK3252GSX	320	2,5	SATA 1	doesn't detect	doesn't detect	doesn't detect
Fujitsu	MHW2120BH	120	2,5	SATA 1	OK	OK	OK
Hitachi	HTS545050KTA300	500	2,5	SATA 1	OK	OK	OK
Seagate	ST3250310NS	250	3,5	SATA 1	OK	OK	OK
Seagate	ST3500310NS	500	3,5	SATA 1	OK	OK	OK
Western Digital	WD1600AAJS	160	3,5	SATA 1	OK	OK	OK
Western Digital	WD2500AAJS	250	3,5	SATA 1	OK	OK	OK
Western Digital	WD3200AAJS	320	3,5	SATA 1	OK	OK	OK
Western Digital	WD5000AACS	500	3,5	SATA 1	OK	OK	OK
Patriot	PE128GS25SSDR	128	2,5 SSD	SATA 1	OK	OK	OK
Samsung	HM251JI	250	2,5	SATA 1	OK	OK	OK
Western Digital	WD2500BEKT	250	2,5	SATA 1	doesn't detect	doesn't detect	doesn't detect
Hitachi	HTS723232L9A360	320	2,5	SATA 1	OK	OK	OK
Samsung	HM500LI	500	2,5	SATA 1	OK	OK	OK

There is "HDD check during start" item in Menu – Advanced setting – HDD setting turned into **no** to quicken the start. If a problem with records occurs try to turn it into **yes** and restart your receiver. HDD checking performs automatically. If a problem resists try to format your HDD.

3. The receiver does not boot the system after installation of new software

The most frequent reason is usage of incorrect installation file. Install AB software and try to boot your receiver. If everything goes correctly try to install your desired software again. Check out if you really use correct installation file („usb_all_noboot“ type)!

4. The receiver does not record after installation of new HDD or recordings are damaged

New HDD must be always formatted in your receiver. Enter the Menu – Advanced setting – HDD setting and select „Format HDD“ item.

Links

<http://www.abipbox.com/>

Official pages of manufacturer

<http://download.abcom.sk/>

Official technical support of manufacturer

<http://www.satupdate.net/>

Unofficial pages about AB receivers

<http://www.denktenk.com/>

Unofficial pages about AB receivers

<http://www.ab-forum.info/>

Unofficial pages about AB receivers

<http://www.parabola.cz/>

Satellite technology page

<http://www.satcentrum.sk/>

Satellite technology page

<http://en.kingofsat.net/hdtv.php>

Actualized list of HDTV channels

<http://kmplayer.kde.org/>

KMP media player page

<http://www.cssf.cz/>

Satellite technology forum

IPBox Team

